

## CLAIMS

1. A data acquisition and transfer device comprising a sensor responsive to change of predetermined nature, and a transmitter for transmitting over the mobile phone network data concerning the occurrence of such a change to a receiver station.
2. A device according to claim 1 including a memory for storing the or each occurrence of a change, and a microprocessor controlling the transmission of stored data at selected intervals.
3. A device according to claim 1 including a receiver for receiving a polling signal, and microprocessor responsive to the receipt of a polling signal by the receiver to cause the transmitter to transmit data.
4. A device according to any one of the preceding claims and including a clock, the device being responsive to the clock output to reduce power consumption of the sensor by only switching the sensor on at predetermined intervals.
5. A device according to any preceding claim wherein the sensor is incorporated in a receptacle for containing drugs to be taken by a user and wherein the removal of an item from the receptacle is the change to be detected by said sensor.
6. A device according to any preceding claim and comprising at least one additional sensor adapted to monitor a physiological condition of the user of the device.
7. A device according to any one of claims 1 to 4, wherein the sensor is adapted to monitor the location of an article.
8. A device according to any one of claims 1 to 4, wherein the sensor is adapted to monitor physical conditions of an article or a person.
9. A data acquisition and transfer system incorporating a device as claimed in any one of the preceding claims and further comprising a reception terminal for receiving data transmitted from the device and storing the received data.

10. A system according to claim 9 wherein the system includes a generator for generating polling signals for the or each device associated with the system.

11. A system according to claim 10, and including a memory, and adapted to store data received from the devices as individual logs of detector events.

12. A data receiver station for use with at least one data acquisition and transfer device, the device having a sensor responsive to change of a predetermined nature, a transmitter for transmitting over the mobile phone network data concerning the occurrence of such a change to the data receiver station, a memory for storing the or each occurrence of a change; a receiver for receiving a polling signal from the receiver station over the mobile phone network and microprocessor means responsive to the receipt of a polling signal from the receiver station to cause the transmitter to transmit data stored in said memory to said receiver station, the microprocessor means including a clock and being adapted to reduce the power consumption of the sensor by only switching the sensor on at predetermined intervals as determined by the clock, and wherein the receiver station comprises a transmitter adapted to send polling signals to the or each data acquisition and transfer device; a receiver adapted to receive data transmitted over the mobile phone network by the or each data acquisition and transfer device, a memory adapted to store data received from the or each data acquisition and transfer device as individual logs of detected events; and

a storage area storing data representing polling times at which the transmitter of the receiver station transmits polling signals to the data acquisition and transfer device or selected data acquisition and transfer devices at intervals determined by clock means which are normally in synchronism with the clock in the or each data acquisition and transfer device so that the receiver station is adapted to send the polling signals when the or each target data acquisition and sensor device is switched on.

13. A data acquisition system comprising at least one data acquisition and transfer device, the device having a sensor responsive to change of a predetermined nature, a transmitter for transmitting over the mobile phone network data concerning the occurrence of such a change to the data receiver station, a memory for storing the or each occurrence of a change; a receiver

for receiving a polling signal from the receiver station over the mobile phone network and microprocessor means responsive to the receipt of a polling signal from the receiver station to cause the transmitter to transmit data stored in said memory to said receiver station, the microprocessor means including a clock and being adapted to reduce the power consumption of the sensor by only switching the sensor on at predetermined intervals as determined by the clock, and a receiver station comprising a transmitter adapted to send polling signals to the or each data acquisition and transfer device; a receiver adapted to receive data transmitted over the mobile phone network by the or each data acquisition and transfer device, a memory adapted to store data received from the or each data acquisition and transfer device as individual logs of detected events; and

a storage area storing data representing polling times at which the transmitter of the receiver station transmits polling signals to the data acquisition and transfer device or selected data acquisition and transfer devices at intervals determined by clock means which are normally in synchronism with the clock in the or each data acquisition and transfer device so that the receiver station is adapted to send the polling signals when the or each target data acquisition and sensor device is switched on.